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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,445	11/28/2001	John Border	PD-201191	2403

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EXAMINER

STRANGE, AARON N

ART UNIT

PAPER NUMBER

2153

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/996,445	BORDER ET AL.	
	Examiner	Art Unit	
	Aaron Strange	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/28/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 22-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The "computer-readable medium" claimed in claims 22-28, as defined in the specification, is not limited to a tangible physical medium. For example, the specification states that "Such a medium may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media." The specification further states "Transmission media can also take the form of acoustic or light waves, such as those generated during radio wave and infrared data communication." The specification also provides that the medium may be a carrier wave as well as additional types of medium are not tangible physical mediums (Present Application, Paragraph 71 to 75). Since the instructions are not necessarily tangibly embodied on a computer readable medium, the claims are merely a manipulation of abstract ideas.

3. To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of Applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1,2,6-9, 13-16, 20-23, 27, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Carneal et al. (US 6,282,542).

6. With regard to claim 1, Carneal discloses a client configured to transmit a message requesting content (web page) specifying an object (inline object) from a content server (Col 8, Lines 7-14); and a plurality of proxy servers including a downstream proxy server (access point) and an upstream proxy server (satellite gateway) (Fig 6, 70 and 72), the downstream proxy server being configured to communicate with the client (web browsers connect to access point) (Col 7, Lines 61-63), wherein the upstream proxy server is configured to retrieve the content from the content server and to forward information associated with the object over a data network to the downstream proxy server prior to the client transmitting another message requesting the object (Col 8, Lines 29-42).

7. With regard to claim 2, Carneal further discloses that the upstream proxy server transmits the object to the downstream proxy server based on a predetermined criteria relating to the object (inline objects are fetched and forwarded automatically) (Col 8, Lines 57-60).

8. With regard to claim 6, Carneal further discloses that the content server forwards content (web page) to the upstream proxy server (Col 8, Lines 22-25), the upstream proxy server forwarding the content along with the information associated with the object (prefetch object listing) to the downstream proxy server (Col 8, Lines 35-37).

9. With regard to claim 7, Carneal further discloses that the content conforms with a markup language that includes Hypertext Markup Language (HTML) (web pages) (Col 8, Lines 7-10). Carneal discloses that the web pages being fetched conform with HTML (Col 1, Line 59-Col 2, Line 9).

10. With regard to claims 8,15, and 22, Carneal discloses a method of providing content to a client, the method comprising: retrieving the content (web page) specifying an object (inline object) (Col 8, Lines 7-14); and forwarding information associated with the object (prefetch object listing) to a downstream server prior to the client transmitting a message requesting the object (Col 8, Lines 29-42).

11. With regard to claims 9,16, and 23, Carneal further discloses retrieving the object and transmitting the object over a communications link to the downstream server based on a predetermined criteria relating to the object (inline objects are fetched and forwarded automatically) (Col 8, Lines 57-60).

12. With regard to claims 13,20, and 27, Carneal further discloses receiving a message requesting the content from the downstream server (Col 8, Lines 14-18); retrieving the content in response to the received message (Col 8, Lines 22-28); and forwarding the content along with the information associated with the object (prefetch object listing) to the downstream server (Col 8, Lines 35-37).

13. With regard to claims 14,21, and 28, Carneal further discloses that the content conforms with a markup language that includes Hypertext Markup Language (HTML) (web pages) (Col 8, Lines 7-10). Carneal discloses that the web pages being fetched conform with HTML (Col 1, Line 59-Col 2, Line 9).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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15. Claims 3,10,17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carneal et al. (US 6,282,542) in view of Sridhar et al. (US 6,266,701).

16. With regard to claims 3,10,17, and 24, while the system disclosed by Carneal shows substantial features of the claimed invention (discussed above), it fails to disclose that the downstream proxy server and the upstream proxy server communicate over a communications link that includes at least one of plurality of Transmission Control Protocol (TCP) connections to support parallel Hypertext Transfer Protocol (HTTP) transactions, and a multiplexed connection of HTTP transactions.

Sridhar teaches the use of a multiplexed connection of HTTP transactions to increase the efficiency of data transfer of web pages containing embedded objects across a satellite link. This allows multiple data streams to be handled using a single instance of the transfer protocol (Col 12, Lines 25-39 and 52-56), reducing overhead and latency of the connection (Col 5, Lines 17-19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a multiplexed connection of HTTP transactions to communicate between the upstream and downstream proxy servers. This would have reduced the overhead and latency of the connection when requesting web pages with embedded objects.

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17. Claims 4,11,18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carneal et al. (US 6,282,542) in view of Quantum Prime Communications.

18. With regard to claims 4,11,18, and 25, Carneal further discloses that the data network includes at a satellite network (Col 5, Lines 9-20), but fails to specifically disclose that the network is a Very Small Aperture Terminal (VSAT) satellite network.

Quantum Prime Communications teaches the use of VSAT technology for satellite networks and discloses several advantages of VSAT over conventional terrestrial networks, such as a fixed cost, decreased installation time, and few geographical limitations.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the satellite network disclosed by Carneal as a VSAT satellite network since it would have allowed the network to be implemented quickly and without the limitations of terrestrial networks.

19. Claims 5,12,19, and 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Carneal et al. (US 6,282,542) In view of Marks et al. (US 6,463,447).

20. With regard to claims 5,12,19, and 26, while the system disclosed by Carneal shows substantial feaures of the claimed invention (discussed above), it fails to disclose

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that the plurality of proxy servers include other downstream proxy servers, the upstream proxy server multicasting the object to the downstream proxy servers over the data network.

Marks teaches the use of a plurality of downstream proxy servers and multicasting an object to the downstream proxy servers (local computing resource) (Col 4, Lines 36-41) over the data network (Col 6, Lines 42-64). The use of multiple downstream proxy servers allows more clients to be served by the network since load on the upstream proxy server is reduced when the downstream servers cache the content.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize multiple downstream proxy servers and multicast the requested objects to the servers over the data network. This would have allowed more clients to be served by the network since load on the upstream proxy server is reduced when the downstream servers cache the objects.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

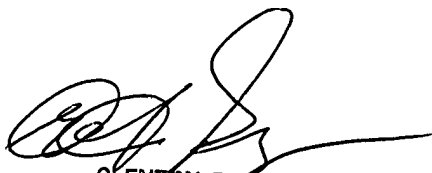
22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ANS 1/4/2005



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